

What is claimed is:

1. An endoscope valve assembly comprising:
 - a housing comprising an inlet port and an outlet port;
 - 5 a valve carried by the housing and comprising a manually-controlled actuator movable between a first position, in which the valve blocks flow between the inlet port and the outlet port, and a second position, in which the valve allows flow between the inlet port and the outlet port;
 - a mounting pad coupled to the housing;
 - 10 a strap secured to the housing; and
 - a mounting buckle movable along the strap.
2. The invention of Claim 1, wherein a surface of the mounting pad opposite the housing comprises a non-linear shape.
- 15 3. The invention of Claim 2, wherein the non-linear shape is a V-shape.
4. The invention of Claim 2, wherein the non-linear shape is curved.
- 20 5. The invention of Claim 2, wherein the non-linear shape matches a shape of a location on an endoscope to which the valve assembly is to be attached.
6. The invention of Claim 1, wherein the mounting pad is separately
25 formed from the housing.
7. The invention of Claim 1, wherein the mounting pad is integral with the housing.
- 30 8. The invention of Claim 1, wherein at least one of the mounting pad and the mounting buckle comprises a resilient material.

9. The invention of Claim 1, wherein the strap comprises hook-and-loop fasteners.

5 10. The invention of Claim 1, wherein the housing comprises at least one D-loop, and wherein at least one end of the strap is operative to be releasably secured to the housing by wrapping the at least one end through the D-loop.

10 11. The invention of Claim 1, wherein the valve assembly further comprises a latch coupled with the valve and operative to releasably hold the valve in a selected state.

12. The invention of Claim 1, wherein the housing comprises a second inlet port.

15 13. The invention of Claim 12, wherein the valve blocks flow between the second inlet port and the outlet port in the first and second positions, and wherein the actuator is movable to a third position, in which the valve allows flow between the second inlet port and the outlet port while blocking flow
20 between the first-mentioned inlet port and the outlet port.

25 14. The invention of Claim 12, wherein the valve assembly further comprises a second valve carried by the housing and coupled between the second inlet port and the outlet port, the second valve comprising a manually-controlled second actuator movable between a third position, in which the second valve blocks flow between the second inlet port and the outlet port, and a fourth position, in which the second valve allows flow between the second inlet port and the outlet port.

30 15. An endoscope valve assembly comprising:
a housing comprising an inlet port and an outlet port;

a valve carried by the housing and comprising a manually-controlled actuator movable between a first position, in which the valve blocks flow between the inlet port and the outlet port, and a second position, in which the valve allows flow between the inlet port and the outlet port; and

5 a mounting pad coupled to the housing, wherein the mounting pad comprises a resilient material, and wherein a surface of the mounting pad opposite the housing comprises a non-linear shape.

10 16. The invention of Claim 15 further comprising a strap secured to the housing.

17. The invention of Claim 16, wherein the strap comprises hook-and-loop fasteners.

15 18. The invention of Claim 16, wherein the housing comprises at least one D-loop, and wherein at least one end of the strap is operative to be releasably secured to the housing by wrapping the at least one end through the D-loop.

20 19. The invention of Claim 16 further comprising a mounting buckle movable along the strap.

20. The invention of Claim 15, wherein the non-linear shape is a V-shape.

25 21. The invention of Claim 15, wherein the non-linear shape is curved.

22. The invention of Claim 15, wherein the non-linear shape matches a shape of a location on an endoscope to which the valve assembly is to be attached.

30 23. The invention of Claim 15, wherein the mounting pad is separately formed from the housing.

24. The invention of Claim 15, wherein the mounting pad is integral with the housing.

5 25. The invention of Claim 15, wherein the valve assembly further comprises a latch coupled with the valve and operative to releasably hold the valve in a selected state.

10 26. The invention of Claim 15, wherein the inlet port is operative to connect to a liquid source, and wherein the valve assembly comprises a second inlet port operative to connect to a suction source.

15 27. The invention of Claim 15, wherein the valve blocks flow between the second inlet port and the outlet port in the first and second positions, and wherein the actuator is movable to a third position, in which the valve allows flow between the second inlet port and the outlet port while blocking flow between the first-mentioned inlet port and the outlet port.

20 28. The invention of Claim 15, wherein the valve assembly further comprises:
a second inlet port included in the housing; and
a second valve carried by the housing and coupled between the second inlet port and the outlet port, the second valve comprising a manually-controlled second actuator movable between a third position, in which the second valve blocks flow between the second inlet port and the outlet port,
25 and a fourth position, in which the second valve allows flow between the second inlet port and the outlet port.

30 29. A method for enhancing control efficiency of a medical endoscope, the method comprising:
(a) providing a medical endoscope comprising an irrigation port;
(b) providing an endoscope valve assembly comprising:
a housing comprising an inlet port and an outlet port;

a valve carried by the housing and comprising a manually-controlled actuator movable between a first position, in which the valve blocks flow between the inlet port and the outlet port, and a second position, in which the valve allows flow between the inlet port and the outlet port;

a mounting pad coupled to the housing;
a strap secured to the housing; and
a mounting buckle movable along the strap;

(c) releasably connecting the outlet port of the valve assembly with the irrigation port of the endoscope; and

(d) performing one of the following:

(d1) placing the mounting pad on the endoscope, moving the mounting buckle along the strap to a position opposite the mounting pad, and releasably securing the valve assembly to the endoscope with the strap;

(d2) placing the mounting pad on a second medical instrument, moving the mounting buckle along the strap to a position opposite the mounting pad, and releasably securing the valve assembly to the second medical instrument with the strap; and

(d3) placing the mounting pad on a hand of a user, moving the mounting buckle along the strap to a position opposite the mounting pad, and releasably securing the valve assembly to the hand of the user with the strap.

30. The invention of Claim 29, wherein a surface of the mounting pad opposite the housing comprises a non-linear shape.

31. The invention of Claim 30, wherein the non-linear shape is a V-shape.

32. The invention of Claim 30, wherein the non-linear shape is curved.

33. The invention of Claim 30, wherein the non-linear shape matches at least one of the following: a location on the endoscope in (d1) and a location on the second medical instrument in (d2).

5 34. The invention of Claim 29, wherein a surface of the mounting pad opposite the housing comprises a linear shape.

35. The invention of Claim 1, wherein a surface of the mounting pad opposite the housing comprises a linear shape.

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